"the main problem can be traced back the Balanced Budget Act of 1997." As the Sun Chronicle editorial writers note, today, "patients sit neglected in nursing homes, . . . meanwhile the federal and state governments—both enjoying budget surpluses—pay the nursing homes less than it costs to take care of patients."

It is disgraceful in this wealthy nation for us to allow this situation to continue. We allocate far too little of our great wealth to pay the hard working people who provide essential nursing home services, and the consequence is that we do not provide these services nearly as well as we should. I was delighted to read this forceful, thoughtful, persuasive editorial in the Sun Chronicle and I ask that it be shared here.

[From the Sun Chronicle, Mar. 10, 2001]

NURSING HOME NEGLECT IN AN AGE OF SURPLUSES

What's wrong with this picture?

Patients sit neglected in nursing homes, wounds soaking through bandages, food growing cold before feeding help arrives, sheets smelling of urine. Administrators can't fill aide positions and nurses leave for higher-paying jobs.

Meanwhile, the federal and state governments—both enjoying budget surpluses—pay the nursing homes less than it costs to take care of patients.

This fractured picture is all too real, as the Sun Chronicle's Rick Thurmond reported in last Sunday's edition.

The only thing that explains this unconscionable situation is politics—and only politics can fix it.

The main problem can be traced back to the Balanced Budget Act of 1997, enacted to counteract federal deficits and eventually bring the budget into balance.

Thanks to the surging economy, that day arrived far sooner than expected, and now such a big surplus is projected that a major tax cut is supported by both parties.

The Medicare cuts in the Balanced Budget Act, while softened last fall, continue—placing nursing home companies in an impossible position.

The government pays for 80 percent of nursing home patients. In Massachusetts, Medicaid provides about $130 a day for patients, while the costs are about $150.

The result is such low salaries that the homes have difficulty keeping aides and professionals alike, with a direct impact on patient care and comfort.

But even keeping salaries low isn't doing it for nursing homes. A number have closed, including Sheldonville Nursing Home in Wrentham and Van Dora Nursing Home in Foxboro. One-fourth of the state's nursing homes face bankruptcy.

Obviously, the answer is money, and the money is there. The question is whether it will be a priority.

Local congressman James McGovern and Barney Frank voted against the Balanced Budget Act and have fought to restore Medicare cuts. We hope the next federal budget, drawing on the burgeoning surplus, will do more for a vulnerable elderly population than have recent budgets.

At the state level, a small step has been taken in approval of two years of wage supplements for nursing home workers. Another state bill has been introduced to boost nursing home reimbursements, but the sponsor has expressed concern that the state income tax cut approved by voters last year will make funds hard to come by.

Obviously, the state tax cut and the coming federal tax cut will increase competition for funding but they should not prevent it.

The sorry picture of nursing home care today can be improved. The means are there. What's needed is the will.

TRIBUTE TO THE NASA GLENN RESEARCH CENTER

HON. DENNIS J. KUCINICH

OF OHIO

IN THE HOUSE OF REPRESENTATIVES

Wednesday, March 21, 2001

Mr. KUCINICH. Mr. Speaker, I would like to bring to the attention of my colleagues an article published in the Continental March 2001 magazine that highlights the achievements of the NASA Glenn Research Center over the past 60 years. Revolutionary advancements in aerospace and aviation technologies have been developed at the NASA Glenn Research Center (GRC), which is located in my congressional district in Cleveland, OH. This article highlights Glenn's contributions to aviation, which include research to create quieter, nonpolluting airplanes. In addition, it details the GRC's work in developing a power system used on the International Space Station and how their research is used to improve commercial products in the United States.

NASA Glenn Research Center continues to play an instrumental role in maintaining our Nation's leadership in aeronautics and aerospace technology. In the future the center will continue to make groundbreaking discoveries that will improve both space travel and life on Earth.

[From the Continental, March 2001]

REACHING FOR THE STARS

(By Todd Wilkinson)

On airy moonlit nights, stargazers in the Northern Hemisphere may notice what appears to be a glowing white speck making regular passes through the sky. It's not a UFO they are seeing or even the pulses of a meteor shower. That piece of metallic glitter is actually a massive human stepping-stone to the cosmos—the new International Space Station—orbiting 220 miles above the earth and taking shape as a base camp for the future exploration of our solar system.

Back on the ground, scientists and biomedical researchers from the National Aeronautics and Space Administration (NASA) are paying special attention to the space station's evolving construction from laboratories located in Cleveland. That's right, Cleveland. As in Ohio. The city pressed up against the southern shore of Lake Erie.

Surprising to many is that quietly over the past half-century some of the most revolutionary advancements in space and aviation technology have been developed at Lewis Field. The Glenn Research Center here, named in honor of the pioneering astronaut and U.S. senator, John Glenn, is perhaps the most unsung of NASA's 10 major campuses. Less known than the Johnson Space Center in Houston or the Kennedy launch pads at Cape Canaveral, Fla., or the Jet Propulsion Laboratory in Pasadena, Calif., NASA Glenn is, nonetheless, playing a pivotal role in transforming the agency's 11th and most novel facility—the space station—from a pie-in-the-sky dream into a symbol of 21st-century ingenuity. And it is giving Cleveland and numerous partner businesses and local universities a tangible connection to the frontier of space.

The NASA Glenn Campus is a labyrinth of six wind tunnels and more than 150 buildings, along with a beehive of laboratories. Since the early 1940s, around the time America entered World War II, the research facilities have been central to the development of jet engines that are today the foundation of commercial and military aviation. But in 1961, when President John F. Kennedy set U.S. sights on the moon, the laboratories also became nurseries for rocket propulsion in the race to space, notes Donald Campbell, director of the Glenn Research Center.

Better than any political leader in the country, Senator Glenn has understood the dividends accrued from public investment in technology. During recent heated debates in Congress over funding for NASA and concerns about cost overruns that have dogged the space station, it was Glenn who urged colleagues to support research and development in emerging technologies. If the United States is to maintain a competitive edge over other nations, he argued, it must sustain and nurture institutions like NASA.

Campbell says NASA Glenn channels much of its research-driven technology into U.S. industry, enabling major advances in commercial products like jet engines and communications satellites. During the 1970s and 1980s, NASA spent about $200 million on turbine engine technologies developed by Glenn and its commercial partners. In turn, that investment yielded billions of dollars in benefits for the U.S. economy, through job creation and spin-off technologies, including the eventual production of the General Electric 90 engine—the workhorse of many planes. ''Engine propulsion technology has historically led the development of new generations of aircraft design, and that shows no signs of changing,'' says Joe Shaw, chief of NASA Glenn's ultraefficient engine technology program. ''More and more we are seeing a cross pollination of ideas between the dual missions of NASA—its support of aeronautics for commercial and military purposes and exploration of space.''

Likewise, the quest to build more powerful and efficient spacecraft reaped incredible dividends. ''It's hard to tell what could come out of our space research that will affect our lives on the ground,'' Shaw says. ''I don't think anybody with the Apollo program knew it would lead to the proliferation of personal laptop computers and digital wristwatches and microbiological sensors.''

Not far off on the horizon, Shaw says, are aircraft that will burn dramatically cleaner fuel, reducing carbon dioxide and nitrogen oxide emissions that contribute to global warming and smog. Those same planes will boast engines that are barely audible to the human ear on the ground once the planes are beyond airport boundaries. Yet the biggest advancement that could arrive in less than a generation will be fleets of ''smart airplanes,'' whose computer systems adjust engines in flight to make them fly more efficiently. And where commercial flights are concerned, efficiency results in the need for less fuel. Ultimately, that would mean better bargains for travelers. An ambitious goal of NASA Glenn scientists is to reduce the travel time to the Far East and Europe by half within the next 25 years, but to also make it possible at today's ticket prices.

Last September, R&D Magazine named three research teams based at Glenn winners of its prestigious R&D 100 Award, known within the industry as the ''Nobel Prize of

applied research.'' The projects that attracted global attention involved the development of superstrong titanium alumnide sheet metal used in aircraft bodies; advancements with PMR (Polymerization of Monomer Reactants) to give aircraft longer shelf lives; and the application of GENOA software that has enabled Boeing and GE aircraft engines to save millions of dollars improving the cutting-edge 777 aircraft engine. Since the early 1960s, Glenn researchers have claimed nearly 80 of the 110 R&D 100 Awards given to NASA projects.

Without question, the most awe-inspiring projects are those dealing with space travel. By his own admission, John Dunning, a 30-year NASA veteran and manager of space station support at Glenn, isn't a man prone to spontaneous gleeful outbursts. But last November, when Space Shuttle Endeavour lifted off from the launch pad at Kennedy Space Center, Dunning and his Glenn colleagues let out a collective whoop. In her belly, Endeavour carried solar panel arrays and advanced nickel-hydrogen batteries that are today providing the power essential to making the International Space Station operational. Without the electrical juice generated by the photovoltaic panels and stored in super batteries, astronauts would be whistling in the dark, says Dunning.

Much of the transportable power grid, built and tested in cooperation with a handful of private aerospace companies, originated on drawing boards at the Glenn laboratories. Prior to shuttle launches in October, November and January, a specially designed radiator that removes waste heat from the station was tested in the Space Power Facility, the world's largest space environment simulation chamber, at NASA Glenn's Plum Brook Station in Sandusky, Ohio. ''Before these recent shuttle missions delivered the power components, the space station crew had been confined to a service module, because most of the structure was uninhabitable,'' Dunning says. ''With the power systems up and running, the volume of space available to crews will significantly improve by about a factor of three, and the amount of consumable electricity will increase from four kilowatts to 24 kilowatts.''

A future principal component of the station's power plant, being developed by NASA Glenn, could be the ''flyway energy storage system,'' which functions like a gyroscope motor spinning at 60,000 revolutions per minute. When the space station arrays are illuminated by the sun, the flywheel functions like a mechanical battery, converting motion into usable energy and vice versa. During periods of orbit when the station is shaded from sunlight, the wheel is turned into a generator that makes electricity to power the life support system and science equipment. Scientists note that at full operating speed the flywheel rotor's linear velocity is two-and-one-half times the speed of sound (1,875 miles per hour). If the wheel itself were allowed to spin without meeting resistance, it would go on for more than 12 hours.

''The flywheel energy storage system represents a revolutionary step in energy storage technology,'' says Raymond Beach, NASA Glenn's team leader for flywheel development. He sees the flywheel as a potential long-term alternative for chemical batteries, which don't last as long and which generate waste. ''The process is very efficient,'' he points out. ''More than 85 percent of the energy put into the wheel comes out.''

NASA believes that in the coming decades similar solar-powered generators could have applications on earth and on Mars. When the Mars Surveyor Lander mission reaches the Red Planet, two pilot Glenn projects—the Mars Array Technology Experiment (MATE) and the Dust Accumulation and Removal Technology (DART)—will explore the feasibility of producing oxygen propellant from the Martian atmosphere and will test whether power-generating solar cells can function amid extreme cold and notorious Martian dust storms. ''Because of the dust, the cold temperatures and the varying light spectrum, the best solar cell for our 'gas station on Mars' might be one that we wouldn't consider using in our space solar arrays,'' says NASA Glenn Project Manager Cosmo Baraona, who is overseeing the experiments.

Solar cells designed at Glenn have already performed better than expected with the Pathfinder and Sojourner Rover, but David Scheiman, a researcher at the Ohio Aerospace Institute in Cleveland, a partner of Glenn, says it is uncertain if those cells will work over the estimated five years it will take to get a human to and from Mars.

Through its Microgravity Science Division, Glenn is NASA's star performer with microgravity experiments involving combustion and fluid physics. Aside from its history with spacecraft and jet engines, Glenn has bolstered Cleveland's reputation as a hub for biomedicine. ''We are fortunate to reside in a region with some of the best medical research institutions in the country and a growing biomedical industry base,'' says Campbell.

At the forefront are researchers like Rafat Ansari, a groundbreaking physicist. ''My personal interest is with the human eye,'' he says. According to Ansari, our eyes are not only windows to the soul, but also windows to the human body, reflecting the health and function of vital chemical processes. They are also places where physicians can look to better understand the risks of exposure to radiation during deep space travel to destinations like Mars. ''When light passes from the cornea into the retina, it also passes through nearly every tissue type found in the body,'' Ansari says. ''By studying those tissues, we can look for evidence of certain conditions from one's cholesterol level to the formation of cataracts to the potential for Alzheimer's disease to diabetes.''

Ansari began his career with NASA 13 years ago. His fascination with eyes started when his father developed cataracts. It led him to investigate the etiology of cataracts and the risks associated with certain diseases. Astronauts can be especially vulnerable because increased exposure to radiation associated with deep space travel may accelerate the growth of cataracts and macular degeneration.

Ansari and a team of Glenn researchers are working with the federal Food and Drug Administration to develop a screening process for diabetes. Another project at the Glenn laboratories involved development of an apparatus in partnership with the National Eye Institute, located at the National Institutes of Health in Bethesda, Md. It would have applications not only on Mars but also in rural parts of the world where there is a niche to fill with telemedicine. The patient or, in the case of space travel, the astronauts would wear a specially designed helmet with eye-examining goggles connected to special sensors monitoring the heart in real time. The apparatus could detect health abnormalities as explorers walk across the Martian surface. But long before the first human mission is sent to the fourth planet from the sun, Ansari would like to see such mobile devices used in remote locales on earth where medicine is unavailable.

In the years ahead, the facility bearing Senator Glenn's name promises to claim its own prominent place on the journey of human discovery. ''This year, as we celebrate the Glenn center's 60th anniversary, all of us can look back in pride at our outstanding accomplishments that have helped propel NASA and U.S. industry to new horizons,'' adds Campbell. ''And no matter where that next horizon is found, Glenn's pioneers and innovators will make it possible for us to travel beyond it. Ultimately, we want the public to benefit from what we do.''

BOROUGH OF DURYEA CELEBRATES CENTENNIAL

HON. PAUL E. KANJORSKI

OF PENNSYLVANIA

IN THE HOUSE OF REPRESENTATIVES

Wednesday, March 21, 2001

Mr. KANJORSKI. Mr. Speaker, I rise today to pay tribute to the Borough of Duryea, Pennsylvania, which will celebrate its centennial on April 7 with a community parade and picnic held by the Duryea Centennial Committee.

Duryea was originally called Babylon because it was a veritable Babel of languages and nationalities due to the immigrants who came to work in the coal mines.

The community was also known as Marcy Township before assuming its present name. The township was formed from territory taken from Pittston, Ransom and Old Forge townships on January 19, 1880. It was named for a pioneer, the first British settler in the region, Zebulon Marcy, who emigrated from Connecticut in the spring of 1770. A census taken at the formation of Marcy Township found 1,159 inhabitants, which had increased to 2,904 by 1890. According to the 2000 census, the population of Duryea is 4,634.

The present name of the community commemorates Abram Duryea of New York, who bought coal lands in the area in 1845 and opened mines around which the town grew up. He served in the Civil War as a colonel of the Fifth New York Infantry in May, 1861, and was brevetted major-general four years later for his gallant and meritorious services.

Prior to becoming a borough, Duryea was a post-office village within Marcy Township, situated two miles north of Pittston. Duryea was incorporated as a borough on April 6, 1901. The first set of ordinances was adopted by council and approved by the burgess, whose equivalent today is the mayor, on August 23, 1901.

In 1901, John A. Burlington was the burgess, Gary M. Gray was president of the council and Charles D. Evans was borough secretary.

At that time, a Methodist church and a Catholic church were already established in the borough. The community was rich in mining and agriculture. Within the borough, there were new coal breakers, along with a rapid rise in the real estate market. The community already had postal, telegraph and telephone communication, as well as the service of three leading railroads, the Lehigh Valley, the Erie and Wyoming Valley, and the Delaware, Lackawanna and Western.